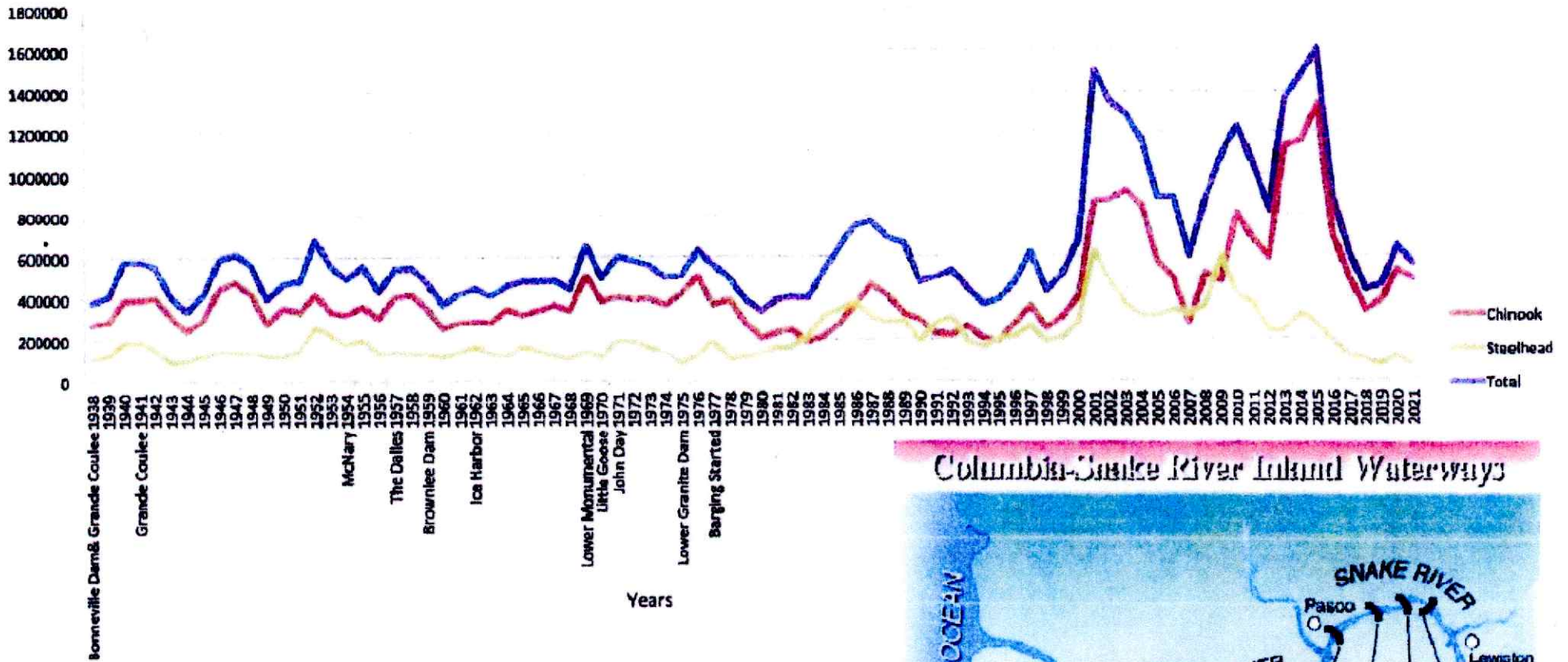


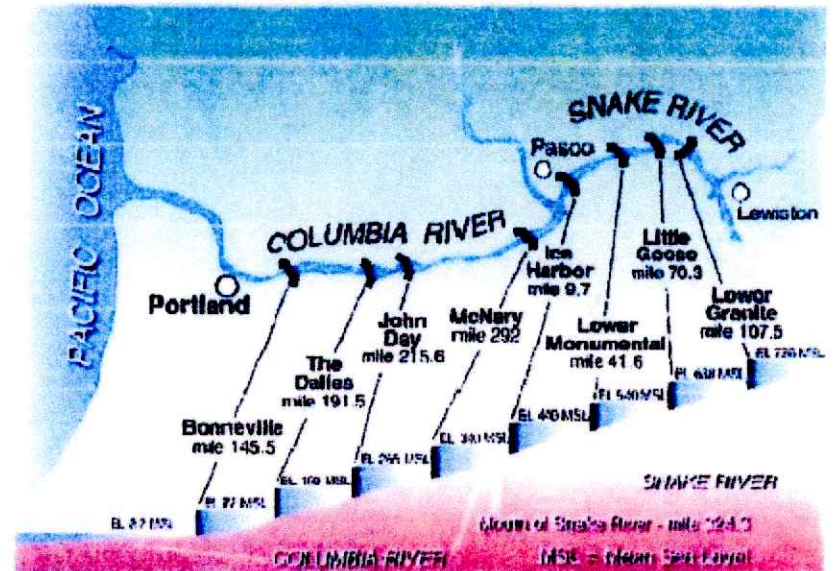
Chinook Salmon and Steelhead Counts at Bonneville Dam 1938-2021



The numbers depicted on the above graph were taken from 83 years of fish counts at Bonneville Dam. From 2001/2015, over 25 years after the last Snake River Dam was finished, 8.2 million fish crossed the dam. That's over a 300% increase from previous years. This increase in fish numbers was due to better ocean conditions and improved barging and hatchery capabilities.

Dr. Charles Foltz

Columbia-Snake River Inland Waterways

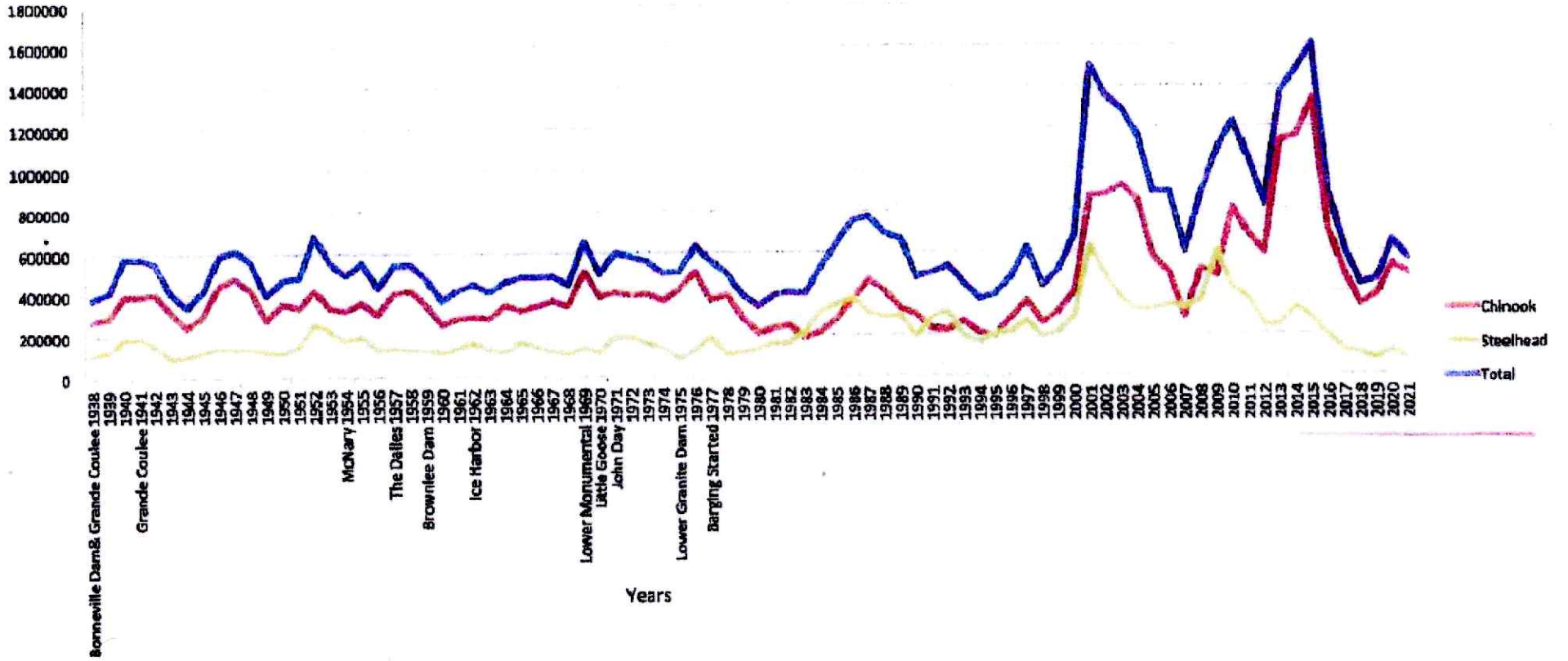


The Columbia Snake River System is a 465-mile commercial waterway that provides farmers as far as the Midwest access to international markets.

Graph 2

By Dr. Charles Pottenger (2022)

Chinook Salmon and Steelhead Counts at Bonneville Dam 1938-2021

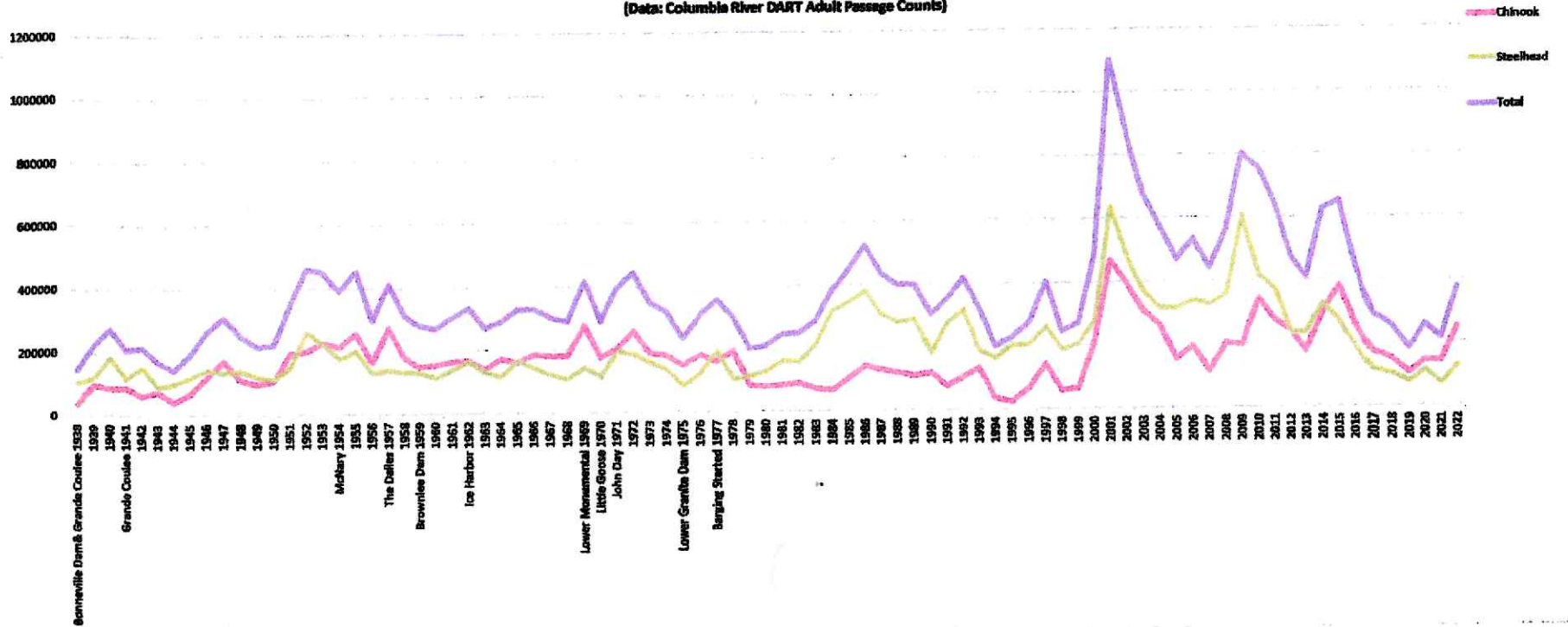


Graph 2

By Dr. Charles Pottenger (2023)

Spring & Summer Chinook Salmon and Steelhead Counts at Bonneville Dam 1938-2022

(Data: Columbia River DART Adult Passage Counts)



Year	Chinook	Steelhead	Total	Dam Built
Bonneville Dam & Grande Coulee	37744	107011	144755	Columbia Bonneville
1939	100150	121932	222082	
1940	88324	185161	273485	
Grande Coulee 1941	88691	118087	206778	Columbia Grande Coulee
1942	65087	151395	216482	
1943	78966	92151	171117	
1944	43466	100473	143939	
1945	71116	120086	191202	
1946	118853	142806	261659	
1947	172318	135434	307752	
1948	109953	139062	249015	
1949	96805	119285	216090	
1950	106893	114087	220980	
1951	194171	149539	343710	
1952	200461	260990	461451	
1953	227873	223914	451787	
McNary 1954	214117	176260	390377	Columbia McNary
1955	254519	198411	452930	
1956	164614	131116	295730	
The Dalles 1957	271444	139184	410628	Columbia The Dalles
1958	177064	131347	308411	
Brownlee Dam 1959	150052	129026	279078	
1960	154765	113676	268441	
1961	165129	139726	304855	
Ice Harbor 1962	168591	164025	332616	
1963	139337	129418	268755	
1964	171868	117252	289120	
1965	160243	166445	326688	
1966	184507	143661	328168	
1967	180407	121872	302279	
1968	181999	106974	288973	
Lower Monumental 1969	275741	141782	417523	Snake River Lower Monumental
Little Goose 1970	175854	113510	289364	Snake River Little Goose
John Day 1971	203428	193966	397394	Columbia John Day
1972	256970	185886	442856	
1973	187508	157823	345331	
1974	180431	137054	317485	
Lower Granite Dam 1975	148455	85540	233995	Snake River Lower Granite I
1976	182461	124177	306638	
Barging Started 1977	160531	193437	353968	
1978	194186	104431	298617	
1979	85679	114007	199686	
1980	80052	129254	209306	
1981	85190	159270	244460	
1982	90140	157640	247780	

1983	72944	213779	286723
1984	69187	315587	384774
1985	107418	343961	451379
1986	144293	379891	524184
1987	131402	303081	434483
1988	121673	279072	400745
1989	110055	287798	397853
1990	119141	183027	302168
1991	76236	274545	350781
1992	103488	314975	418463
1993	132865	188377	321242
1994	37800	161978	199778
1995	25222	202448	227670
1996	67526	205216	272742
1997	141939	258385	400324
1998	59775	185094	244869
1999	64838	206488	271326
2000	208918	275178	484096
2001	467523	633073	1100596
2002	396249	480309	876558
2003	306818	365821	672639
2004	262295	313371	575666
2005	153246	315650	468896
2006	193975	339301	533276
2007	114506	325275	439781
2008	203814	357816	561630
2009	196461	604970	801431
2010	341989	416603	758592
2011	275376	369365	644741
2012	239738	235276	475014
2013	176396	234047	410443
2014	297812	326001	623813
2015	381985	268730	650715
2016	256767	188132	444899
2017	171660	117878	289538
2018	148947	102920	251867
2019	105706	77320	183026
2020	143757	114423	258180
2021	141721	71967	213688
2022	248543	126367	374910

CURRICULUM VITAE

Dr. Charles R. Pottenger, PhD

Born in 1939 in Philadelphia, Pennsylvania

1957 Graduated Quaker Valley High School, Leetsdale, Pennsylvania

1957-1959 Tufts University, Medford, Massachusetts, Major Chemical Engineering

1959-1961 Pennsylvania State University, State College, Pennsylvania, Major Wood Utilization. Graduated BS.

1961-1965 University of Minnesota, St. Paul, Minnesota, Major Forest Products Engineering; Minor Chemistry. Graduated MS.

1964-1968 The Institute of Paper Chemistry, Appleton, Wisconsin, Physical Organic Chemistry Thesis "Cerium IV Ion Oxidation of Schardinger Beta Dextrin. Graduated PhD Pulp & Paper Science.

1968-1973 Potlatch Corporation, Cloquet, Minnesota Research Engineer. Worked in Pulp and Paper Coatings.

1973-1975 Potlatch Corporation, Cloquet, Minnesota Assistant Director of Research. Worked on Pulp Mill Technical Audits of Operations in Minnesota, Idaho and Arkansas.

1975-1979 Potlatch Corporation McGehee, Arkansas Technical Director. Worked with Consulting Engineering Firm Designing, Constructing, Staffing, Training and Start-up of New 450-Ton/Day Pulp & Paperboard Mill.

1979-1983 Potlatch Corporation Pulp & Paperboard Division, Lewiston, Idaho. Production Manager responsible for operation and maintenance of facility.

1983-1989 Potlatch Corporation Pulp & Paperboard Division, Lewiston, Idaho. Vice President, responsible for operations, maintenance and planning for the Lewiston Mill.

1989-1993 Potlatch Corporation Northwest Paper Division, Cloquet, Minnesota, Vice President, responsible for operations, marketing, sales and planning.

1993-2000 Potlatch Corporation Pulp & Paperboard, Lewiston, Idaho Group Vice President, responsible for operation, maintenance, marketing, sales and planning for Mills in Lewiston, Idaho and McGehee, Arkansas.

2000-Present Retired